Integrating Knowledge Management and Human Resource Development: A knowledge based HRD process model

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Abstract

The human resource management field is known for its information and knowledge intensive nature, yet it could be easily suggested that the most dominant work has focused upon the human resource management as a systematic way of accumulating and processing of information related to people in the organization. The focus of the past development remained mostly on information processing, and more recently on explicit knowledge; however, using a knowledge management perspective could provide more fruitful and comprehensive source of knowledge based human resource development approach. A profound role of tacit knowledge in the development of individuals and particularly communities of practices could emerge as an alternative source of practice based HRD. The "knowledge lens" conceptual approach is used to enrich the human resource development field in order to integrate and bring commonalities in the fields of HRM and KM. Focusing on the core beliefs in the two fields through a synthesis literature review, a four phased knowledge oriented HRD conceptual framework is developed that presents an attempt to extended general HRD process model by integrating knowledge management at various stages of HRD. Important research prepositions driven out of the framework and corresponding 10 research questions are formulated for future multidisciplinary research efforts.

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1. Introduction

Knowledge management is conceptualized as a process of collecting, distribution, utilization of various forms of knowledge (Akhavan, Ebrahim, Fetrati, & Pezeshkan, 2016) and the rise of the knowledge-based economy (Popescu, Sabie, & Comanescu, 2016) demands the organizations to foresee changes in every functional area of the organizations (Fugate, Stank, & Mentzer, 2009). KM has a broad scope and interdisciplinary nature which is not only effected by multiple disciplines, but it is also forcing changes in various associated fields giving way to changed models and reworked practices (Hislop, 2002). Knowledge and knowledge workers remain at the heart of competitive advantage debates and reflect the convergence of HRM and KM domains (Dul, Ceylan, & Jaspers, 2011; Fritz, Lam, & Spreitzer, 2011). In the context of HRM, researchers have suggested a shift away from a highly centralized functional perspective towards a knowledge centered and people-oriented approach (Chivu & Popescu, 2008).

Though there are researches that have tried to develop linkages between the fields of KM and HRM, this paper attempts to explore further possibilities of models that could bring ideas and concepts from the fields of Knowledge Management and Human Resource Management (Jimenez-Jimenez & Sanz-Valle, 2012). This research attempt follows the assumption that a revitalized HRM contributes to the successful implementation of KM in organizations and vice versa; this requires HR to play a different role in leveraging the organizational knowledge stock (Minbaeva, Foss, & Snell, 2009; Minbaeva, 2008; Narasimha, 2000).

The question remains unanswered is how knowledge management could be integrated within the field of HRM. It definitely requires an investigation with a profound focus on KM application in the field of HRM (Biesalski, 2003; Theriou & Chatzoglou, 2008). KM approach targets organizational elements and practices with a growing emphasis on creation and distribution of knowledge within

the organizations. There is also a clear shift in focus on social aspects of knowledge, especially that rely heavily upon the association of individuals and communities continuously engaged in knowledge exchange and learning (Fai Pun & Nathai-Balkissoon, 2011).

Several streams of literature have contributed to the improvisation of the human resource management field ranging from operational aspects to strategic perspective (Armstrong, 2006; Festing, Eidems, & Royer, 2007). The resource-based view (RBV) perspective is applied by a variety of researchers to explain HRM-performance research (Mabey & Gooderham, 2005; Paauwe, 2009). Researchers have used resource-based view perspective to examine the phenomenon of competitive advantage; finding specific influences from HRM practice (Paauwe, 2009) advocating that the central source of competitive advantage lies in the organizational ability to develop and exploit the non-transferrable resources and capabilities.

Researchers have also examined the empirical linkages between HRD and organizational performance in the context of increased employees' abilities and motivation (Garavan, Gunnigle, & Morley, 2000; Perez Lopez, Montes Peon, & Vazquez Ordas, 2005). Human centered approaches with implications for HRM are now preferred over technological approaches as a source of comparing organizations (Ferris et al., 2007).

Firms operating in the 21st century face challenges both internally and externally and the managers need to maintain a consistent high performance through sustainable innovation (Popescu et al., 2016). Focusing on strong values revolving around knowledge creation and sharing could prove to be the ultimate source of competitive advantage (Gloet, 2004). This research attempt also provides a useful reference to researchers and managers for investigating the integration of KM and HRM domains. The specific context of Human Resource Development (HRD) as a process (Mankin, 2001) is examined to see "how a knowledge management lens could enrich and extend the general process model of HRD"?

Seeking answers to the question have resulted in a knowledge based extended model of the human resource development process that emphasizes that HRM should integrate organizational objectives and mission with a clear philosophy of knowledge

management that will lead to developing an environment, where employees can share and use knowledge with ease. By utilization of all organization's resources, HRM should focus on knowledge transfer and sharing mechanism that facilitate tacit knowledge and then attempt to translate this tacit knowledge to explicit knowledge which leads to create strategic capability in organizations (Minbaeva et al., 2009; Minbaeva, 2008; Popescu et al., 2016). HRM must recognize and reward knowledge sharing in organization and support activities that integrate knowledge sharing in daily life of personnel (Minbaeva, 2008).

This has a strong implication for the HRM function i.e. HRM must apply an appropriate method for selection, appraisal, and compensation of knowledge workers in the organization (Chuang, Jackson, & Jiang, 2016). The main proposition in the model resulted in developing the research question that "How a knowledge based HRD function could result in improved HR effectiveness? Gloet (2004) has recommended, on similar lines, for practitioners to revitalize the HRM function in order to survive in the knowledge economy; for him, organizations are required to make major changes across the human resource management field. Knowledge workers possess distinct abilities as they not only possess quality knowledge stocks, but they also have the creative ability to apply this theoretical knowledge for enhanced productivity.

Knowledge workers are the central focus of a knowledge-oriented company which means that it should be harder to retain their services through traditional human resource management policies and practices (Drucker, 2006; Dul et al., 2011). The process based framework proposed in this research attempt indicates the importance of evaluating the HRD sub processes in the light of KM resulting in specific research questions for each phase. Acknowledging the need for models that could integrate two important fields of KM and HRD, this paper attempts to present a theoretical synthesis building up a conceptual knowledge base within the human resource management literature. Literature in knowledge management is used as a source to develop a conceptual research framework to identify potential research prepositions in the field of human resource management in general and HR development in particular. The model

will further guide the development of the sub research models leading to important research questions.

2. Integration of KM in the HRM Domain

2.1 Knowledge Lens applied to HRM

To understand the real essence of Knowledge Management, one needs to bring forward a philosophical stance to capture the conceptualization of knowledge itself. For positivist, knowledge remains a justified belief and an objective and static resource. This research attempt, however, takes an alternative stance on defining knowledge i.e. "Constructivist Perspective" that sees knowledge as a state of knowing and it is best depicted as an experience rooted in practice, action and social relationships. Knowledge from this perspective is dynamic and reflects a process of knowing (a social process); where knowledge management as a complete phenomenon majorly depends on "People" and becomes a way of facilitating knowledge creation and sharing in the social context.

The constructivist approach heavily relies on the knowledge that exists in the social context of groups in the organizations (Schultze & Stabell, 2004). Knowledge from this viewpoint though resides in individuals but could also be generated in the informal social settings (Nonaka & Peltokorpi, 2006). This viewpoint will become a very important aspect in the context of HRM, and particularly for HRD - the importance of employees with wisdom and experience facilitating the development of fellow employees and contribute to the overall development of organizational knowledge stock.

When you are bringing theories and perspectives from outside the field of interest, a lens metaphor could be a useful tool in finding areas where such theories could explain various aspects of the phenomenon under study. Human Resource Management in general and Human Resource Development (HRD) in particular, when seen from a knowledge lens could provide useful insights and could integrate two major theoretical streams for better understanding (Amundson, 1998; Gardner, 2006). The knowledge lens could become a useful source to identify and relate key HRD applications and issues.

a. One could confidently suggest that while studying the over-all human resource management field, there is propelling advocacy on the importance of knowledge management.

b. Common understanding in both fields could be generated in terms of the human-centered focus of knowledge management establishing the central importance of human resources as the main carrier of key organizational knowledge (mostly tacit).

c. Both fields of studies reflected to have a common understanding of concepts and could therefore be integrated to develop a useful framework.

d. The resulting prepositions and the emerging framework could be able to explain major concerns and be able to guide practical considerations.

This paper has used the knowledge management approach as a "process" and Probst, Romhardt, and Raub (2000) model on knowledge management processes is used as a knowledge lens for the field of HRD. The idea is based on the logic that both models of KM and HRD used, do represent the aspect of a "process" and therefore allows us to integrate the two using a logical and systematic approach. The next section will briefly explain the various dimensions of the knowledge lens.

2.1.1 Knowledge Goals

Knowledge goals represents the initial phase of the KM initiative that revolves around the types of knowledge goals at various levels of the organization as these point the way for knowledge management activities. Traditionally, the company's main objective was translating the knowledge to organizational memory by exploitation knowledge from all possible sources; which has given way to an alternative focus on exploration as well as exploitation as organizations now look for more enriched combination of explicit and tacit knowledge. This phase actually guides the overall KM key activities and is classified as the support function.
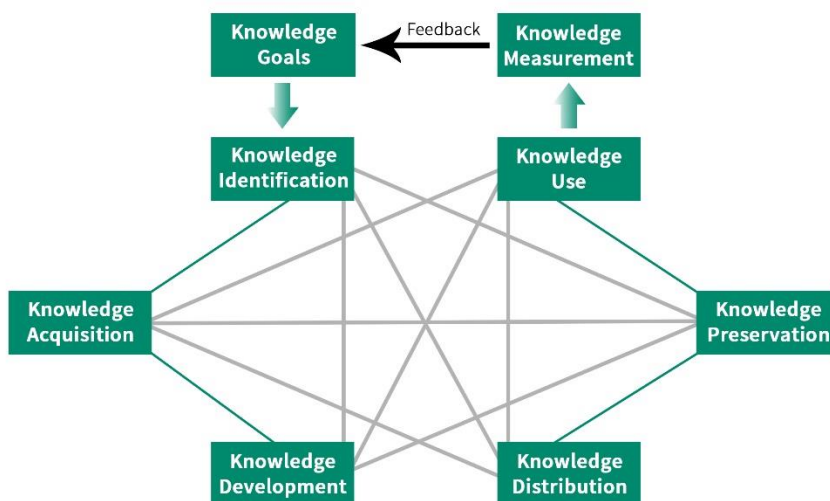
Figure 1. KM Approach Model Adopted from Probst, Rahb and Romhardt (2000)

2.1.2 Knowledge Identification

Companies should understand the type of knowledge they need and identify key sources that could enhance the overall level of knowledge stock. Modern HR activities carried in shape of a business process reengineering and flattening the organization make it further difficult to maintain and retain knowledge sharing mechanisms in informal settings. Successful KM initiative creates sustainable flows of internal knowledge and supports employees in their knowledge-oriented ventures.

2.1.3 Knowledge Acquisition

Knowledge capabilities are to be developed for competitive advantage and acquisition of knowledge through multiple sources within and outside the organization could ensure the continuity of advantage. Organizations need to develop mechanism for continuous knowledge exploitation across various levels and could hire knowledge specialists in the permanent positions or in any other alternative settings.

2.1.4 Knowledge Development

This part of the process comprised of practices targeted at comprehensive development of knowledge stocks in the organization through involvement of individuals and teams. Creation of new knowledge alongside an approach towards rectification of problems is the common way to develop knowledge among employees and the teams are encouraged to enhance learning through mutual sharing and cooperation. The development of knowledge, especially tacit knowledge, needs delegation of power, trust based environment and shared vision of mutual benefits.

2.1.5 Knowledge Distribution

Once knowledge stocks are developed, the need to distribute this enriched source becomes a critical activity. Organizations will ensure the smooth transition of knowledge from repositories and stock to concerned actors both formally and informally. A geographically dispersed organization will rely heavily on networked mechanism for effective distribution to various employees, teams and units. This will provide cost and efficiency advantages and a timely response to customer needs and pinpoint services.

2.1.6 Knowledge Use

The major purpose of knowledge management is to ensure that the knowledge generated in the organization through a systematic and continuous process, is properly utilized. This requires the organization wide actors to ensure that the accumulated knowledge is brought to practice as the real sense of knowledge resides in the notion of "action". Development of monitoring bodies, expert committees and project leaders ensure that the consistent and active use of knowledge takes place in the organization.

2.1.7 Knowledge Preservation

Knowledge stocks created needed to be preserved in a way that the most critical aspects of knowledge are available for reference. The maintenance of knowledge repositories could ensure the long lasting benefits for the organizations by facilitating the distribution and reuse of its knowledge stock. Most importantly knowledge workers

must be rewarded and retained in the organization to keep this continuity alive as without these actors the organizational memory is useless.

2.1.8 Knowledge Evaluation & Measurement

Knowledge evaluation in terms of quality of overall stock and efficiency of the process remains a controversial and difficult phase in the KM approach. It is very difficult to set evaluation criteria for KM as it is a very subjective assessment and requires lot of time. Since, experts will spend extensive time and resources on the process, the overall cost of the evaluation could exceed expectations. Many companies would still invest in this critical step as they see a greater potential in terms of outcomes achieved. It is recommended by Probst et al. (2000) that this knowledge process model should be used as an integrated mechanism i.e. every phase and activity has its own contribution in the overall KM approach and should be dealt with carefulness and seen as an essential component.

3. Integrating Knowledge Management and HRM

The recent HRM literature suggests that organizations need to explore revitalized HRM-performance linkages by coordinating HR strategies with KM strategies in order to identify sources for value creation. There are examples in literature that attempts to bridge the gap between HRM and KM by combining different theoretical perspectives that are originated in the field of knowledge management and have common objectives in the context of HRM theories. Few of the studies have vital contribution as they address the relative importance of different knowledge types (e.g. tacit and explicit) critically linked to not only overall organizational strategies but also emphasized in terms of various functional level challenges (Hansen, Nohria, & Tierney, 1999). The linkage between HRM and KM are mostly researched through the lens of the 'best fit' approach for understanding variation across different context (Shih, Chiang, & Hsu, 2006).

One of the ways to integrate the two streams is to identify gaps that could use established elements from HRM to support KM approaches e.g. the HRM function facilitating the knowledge workers in the organization. The focus could be placed on capability/competency development that could foster and facilitate

knowledge management processes and programs (Hislop, 2002). The role of HRM function in the creation of knowledge culture could also be emphasized with the focus on employee's interaction with a common set of values based on association and social shared identity. Another stream of researches have nominated the 'relational' approach (Cabrera, Collins, & Salgado, 2006) that tends to identify situation and circumstances where the relationship between KM and HRM practices could be established.

3.1 Defining Human Resource Development

HRM itself reflects the essence of a very broad field, sub-divided to further processes and essential practices. Foot and Hook (2008) have categorized various HRM function to four distinct processes i.e. Acquire HR, Maintain HR, Develop HR and Reward HR. To follow a more focused attempt, this paper specifically examines sub-system of HRM i.e. Human Resource Development (HRD). Metcalfe and Rees (2005) have suggested that the HRD field is quite novice in terms of various HRD aspects studied by the researchers and logically there is lack of consensus among researchers on the terms and meanings presented in the field. HRD could be seen as a process of developing and leveraging expertise through organizational development and individual betterment through training for improved organizational performance (Swanson & Holton III, 2009). Researchers have integrated multiple fields and streams of knowledge with HRD; some classified it in terms of capabilities associated with learning organization (Garavan et al., 2000), while others have examined the performance perspective rather the learning aspect (Holton, 2002).

Holton (2002) defines human resource development (HRD) as a concept relating three important aspects i.e. learning, change management and organizational performance. The controversy associated with conceptualization of HRD researchers have recommended a changed focus on HRD as a process rather as a functional phenomenon (Mabey & Gooderham, 2005). Taking lead from Mankin's notion of HRD as a process (Mankin, 2001), this paper would like to see how a knowledge management lens could enrich and extend the general process modal of HRD i.e. attempting to present a

knowledge based extended model of the human resource development process.

3.2 HR Development from KM Process Model Perspective

In order to integrate the fields of study, it is important to locate the overlapping areas and elements in the fields under consideration, so this particular section will try to integrate the literature from KM and HRD to identify common conceptualization and the development of integrated research prepositions. According to Armstrong (2006), HRD ensures that the individual's ability is strongly associated with learning through experiences and the process upgrades their current level of capability and knowledge to higher level state so that they could manage the complexities of future situations through enhanced knowledge and capabilities. This conceptualization of HRD strongly recommends the utilization of knowledge management in organizations to foster HR development in organizations.

The focus will particularly be on social and situated views of knowledge since these ideas remain central to the research approach adopted in this paper. The notion of knowledge in the social context strengthens the explanation of the growing importance of knowledge associated with practice. This brings to surface the role of communities of practice and the role of social capital. The literature on both sides will eventually be discussed in the upcoming sections to provide evidences for the applicability of the upcoming framework.

The HRD process could be vitalized and enriched in many ways using the KM processes and could result in increased HR effectiveness (Gloet, 2006). HRD processes and especially the assessment and analysis will be heavily affected by the focus of knowledge management goals and knowledge type i.e. HRD programs will try to successfully create a constant flow of knowledge from experts both through formal and informal mechanisms. Organization need to develop mechanism for continuous knowledge exploitation across various levels and need to hire, promote and support knowledge workers through focused HRD programs.

Development of knowledge, especially tacit knowledge shared in the informal settings should be focused more during the HRD analysis so that HRD initiatives are influenced to successfully

generate knowledge management goals. Organizations will ensure the smooth transition of knowledge from repositories and stock to concerned actors both formally and informally; this requires the organization wide actors to ensure that the accumulated knowledge is brought to practice as the real sense of knowledge resides in the notion of "action" and HRD programs need to focus more on practice oriented approach (Gourlay, 2001). Consequently HRD evaluation also needs to establish criteria revolving around knowledge intensive practices i.e. rewarding knowledge workers who actively engage in knowledge centered activities, and retaining them for knowledge preservation in the organization to improve overall knowledge stock.

4. A Framework of Knowledge-Based HRD Processes

This section presents the initial framework that integrates KM to the human resource development function. The literature review suggested that there exists no such framework in either of the fields. The idea is to develop the building blocks for understanding the knowledge management concepts applicable to the human resource development function. Integration of knowledge management processes to the HRD elements would result in an emphasized knowledge centered HRD perspective; for such integration to be successful researchers have emphasized on creating and maintaining a knowledge centered approach in HR practices in general and on organizational culture in particular (O'Dell & Hubert, 2011a, 2011b). Among the activities that focus on knowledge centered perspective, knowledge sharing and transfer of knowledge has remained the most popular stream of researches (Ford & Chan, 2003; Søndergaard, Kerr, & Clegg, 2007; Wang & Noe, 2010).

Figure 2 presents the various dimensions of four distinct phased knowledge-based HRD process framework has emerged through the convergence of literature from knowledge management and HRM; it integrates KM activities with corresponding HRD elements resulting in transformed HRD processes.

The four phases of knowledge based HRD presents a broad framework with enhanced HRD functions after the integration of

KM lens in the process and each phase of the framework is elaborated in the next section.

Phase 1: Establishing shared goals for knowledge management could be seen as an essential ingredient of human resource development programs, focus on identifying key knowledge potentials in various individuals and teams could establish at very early stages, right vision for the ongoing development processes and upcoming stages. Using the resource-based perspective (RBV), the arguments are based on the assumption that differences in HRD processes in organizations result in a logical variation in their overall ability to generate sustainable organizational performance.
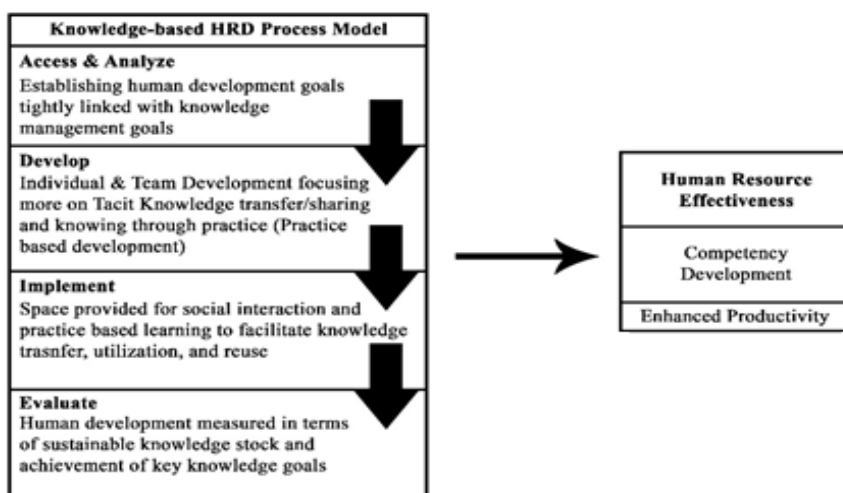
Knowledge-based HRD Process Model

Access & Analyze
Establishing human development goals tightly linked with knowledge management goals

Develop
Individual & Team Development focusing more on Tacit Knowledge transfer/sharing and knowing through practice (Practice based development)

Implement
Space provided for social interaction and practice based learning to facilitate knowledge trasnfer, utilization, and reuse

Evaluate
Human development measured in terms of sustainable knowledge stock and achievement of key knowledge goals

Human Resource Effectiveness

Competency Development

Enhanced Productivity

Figure 2. A Framework for Knowledge Based HRD Processes

The effective HRD processes in the longer run would generate organizational advantage determined by the quality of its human resources in the light of the resource based perspective – fulfilling the criteria of VIRO (Festing et al., 2007). This focuses on unique and non-substitutable human resources that generate the closest link to knowledge management as Drucker (2006) classified the knowledgeable workers as the biggest source of competitive advantage. The two important phases of knowledge management approach could facilitate the HRD analysis phase i.e. knowledge goals and knowledge identification. As knowledge goals will guide the initial

planning aspects; knowledge identification would facilitate in judgment on the potential knowledge sources while considering the HR development.

Phase 2: Well-established knowledge centered HRD goals will give way to the second phase of HRD process i.e. "development" phase where knowledge-oriented human resource development methods and programs are created that will tend to rely on knowledge-focused approach. The first step in these programs will be to identify important resources, actors and systems from where the programs will do the knowledge acquisition. The types of knowledge i.e. tacit, explicit and phronesis (Nonaka et al., 2014) will require different acquisition mechanism and will translate the development of related HRD methods and programs. To incorporate the notion of tacit knowledge that is majorly associated with "knowledge in action", the HR training methods and development programs need to focus on providing social settings and interaction of human actors rather heavily relying on technological alternatives.

The practice-based approach - also known as the "practice paradigm" (Savigny, Knorr-Cetina, & Schatzki, 2001) welcomes the notion of duality, acknowledging knowledge as both shaping and being shaped by the social context and experiences (Schultze & Stabell, 2004). The practice based approach is now appreciated not only among the researchers that follow the eastern philosophical mindsets rather the more objectivist western researchers are also showing greater flexibility in this regard (Hislop, 2002). HR professionals will develop programs that could cover both aspects of knowledge explicit as well as tacit. The organization therefore should develop training methods that could utilize stored organizational memory through knowledge distribution and also methods that should focus on human interaction to facilitate socialization and interaction of various actors in formal and informal settings.

Phase 3: The most significant challenges related to knowledge embedded HRD practices are likely to be in the phase 3 i.e. the implementation of knowledge oriented HRD initiatives and programs. Effective training programs carefully implemented could ensure benefits in term of enhanced skills, a vibrant and effective HR. It will

also be required from future HRD programs to help facilitate the knowledge sharing and enhanced learning for the sake of individual and organizational effectiveness. Knowledge sharing and transfer is closely embedded in the daily routines and organizational activities would establish knowledge oriented development structures. Both explicit knowledge sources (KMS) and informal socialization platforms for communities of practice could work in harmony to generate the simultaneous transfer and utilization of knowledge.

There will be stronger emphasis on different types of learning to strengthen the overall capabilities of the workforce. Both formal and informal settings could ensure space for active learning and development on the job. The case studies on the knowledge intensive firms revealed their secret of success that lies in the way their employees engage themselves in continuous learning loops. Various types of training programs could be devised suited for different levels as the knowledge requirements for every level may require a different kind of application.

Phase 4: The last phase comprised of the evaluation and measurement of outcomes generated throughout the process; the main focus of this extended HRD evaluation will be to compare the outcomes of knowledge-based HRD process with that of objectives and goals set in the initial phase. Secondly, the evaluation of outcomes in terms to quality and strength will be based on the level of knowledge stocks for individual actors as well as the organization. The main objective in this context will be to make sure that knowledge stocks should not decay and a sense of sustainability prevails. The concepts related to knowledge measurement and evaluation will guide the process and terms like "Knowledge Equity" and "Intellectual Capital" become important. One of the bigger challenges is associated with the measurement of knowledge stock and its quality but organizations will still need to find ways to accomplish it.

The relevant literature indicated various perspectives of HRD that could have broadened the focus of this study, so the perspective of HRD from an organizational point of view is taken where HRD is conceptualized as a sub function of HRM. Secondly, the constructivist philosophy of knowledge management is adopted that highlights the importance of "people centered" approach to knowledge management in the social context. Finally, both KM and

HRD are related to each other from being a "process" perspective to develop the framework. As a result, various knowledge management activities are closely associated with HRD processes from a firm's perspective with a focus on social context resulting in an enriched HRD model. Moreover, a delicate balance between explicit and tacit knowledge resulting in use of phronesis (Nonaka, Kodama, Hirose, & Kohlbacher, 2014) is proposed that could be classified as the major future challenge for HRD function – a need to evaluate current training and development programs to incorporate essential types of knowledge flowing within various interactions of people in the organization and at various levels.

Since the primary focus of this research is on the HRD process that reflects one of the major HRM activity; one should not forget the importance of the additional influences on the HR effectiveness outcomes. Important influences could come from many sources in the HRM frame; ranging from appropriate organizational culture, leadership support and individual motivation and personality (O'Dell & Hubert, 2011a;Perez Lopez et al., 2005; Swanson & Holton III, 2009). Since we need to establish a more concentrated effort in this research attempt, we have assumed that the remaining influences for the time being kept constant and assumed to be working in positive direction of the model otherwise it will be very difficult to manage these complex streams in a single research effort. Adding more influences in the model, however, could result in interesting future research agendas.

5. Proposed Research Models

Organizations tend to vary in terms of way their workers engage in knowledge intensive activities, therefor, reflect a limited to strong focus on knowledge centered approach. Organizations focusing on technical and pure operational aspect of organizational activities for improvement in processes, products and services tend to focus less on human and knowledge dimensions of the work and therefore reflect a low orientation towards importance of knowledge (Nonaka, 1994). Knowledge intensive firms clearly present an organizational model where knowledge focus is generally stronger and knowledge

centered activities dominate the overall proceedings (Jackson, Chuang, Harden, & Jiang, 2006).

Jackson et al. (2006) have suggested that knowledge-centered activities include the following: knowledge acquisition, knowledge sharing, knowledge combination, knowledge creation, knowledge application, and knowledge revision. Most of the researches on knowledge intensive firms from the subjectivist approach have focused on knowledge creation and knowledge sharing as the major knowledge centered activities (Nonaka, 1994; Nonaka et al., 2014; Nonaka & Peltokorpi, 2006); while others from a positivist approach focus more on knowledge combination, application and revision (Akhavan et al., 2016; Davenport & Prusak, 1998; Swart & Kinnie, 2003).

The model builds upon the logical integration of both fields through the process approach and new HRD phases reflects the essence of knowledge management processes i.e. acquisition, transfer, utilization and further development. The four stages reflect a logical progression of the human resource development function tightly linked with knowledge oriented activities resulting in four straightforward research questions:

1. How knowledge centered HRD Analysis contributes to increased HR effectiveness?
2. How knowledge focused HRD programs cast an impact on HR effectiveness?
3. How knowledge oriented HRD implementation results in improved HR effectiveness?
4. How knowledge oriented HRD evaluation contributes to improved HR effectiveness?

These research questions once answered could bridge useful gaps in the HRM literature in general and HR development literature in particular on the role of knowledge management in these areas.

5.1 Proposed Research Model 1 – Knowledge Focused HRD Analysis

Knowledge intensive firms like consultancy firms could be used to examine the pattern of the exact linkages between HRD analysis and knowledge goals. It is quite evident from both literatures that researchers have suggested the strong link between knowledge management and performance. Organizations are therefore required to

establish a strong vision instilled in HR development to focus on foster knowledge generation and development of knowledge workers throughout the organizations. This led to first preposition and the corresponding research question:

Preposition 1: Knowledge-centered HRD analysis will enhance HR effectiveness.

RQ1: How knowledge centered HRD Analysis contributes to increased HR effectiveness?

In response to the preposition 1 the literature on both sides suggests common grounds on which the organizations could establish knowledge centered goals in the context of human resource development at the earliest point of the HRD cycle. Table 1 presents the core beliefs in the context of KM (Nonaka, 1994); and HRD (Swanson & Holton, 2001) reflecting a possibility of shared vision and understanding of concepts.

The establishment of knowledge objectives at the very start of the HRD process is well in-line with the various literature on role of knowledge management in the organization and especially the creation of a knowledge intensive organizational culture which is heavily cited as a source of overall effectiveness in organizations.

5.2 Proposed Research Model 2 – Knowledge Based HRD Programs

The second research model that has emerged from the integration of the two filed is transformation of normal HRD program in the development stage will give way to the knowledge focused HRD programs will lead to the overall HR effectiveness.

Preposition 2: Knowledge focused HRD programs will have significant positive impact on HR effectiveness

Table 1
Comparison between HRD and KM core beliefs

Core HRD Beliefs	Core KM Beliefs
Organizations are human-made entities that rely on human expertise in order to establish and achieve their goals.	Knowledge (especailly tacit knowledge) is deeply rooted in human aspects and is embedded in experiences, belief structures and behaviors
Human expertise is developed and maximized through HRD processes and should be done for the mutual long-term and/or short-term benefits of the sponsoring organizations and the individuals involved.	Knowledge management must focus on both shorter as well as longer objectives i.e. organizations must recognize the importance of exploitation as well as exploration.
HRD professionals are advocates of invidual/group work processes, and organizational integrity.	Having a central focus on people oriented knowledge management approach could provide organizations the ultimate competitive advantage.

Based on the above stated preposition the second main research question is derived as:

RQ2: How knowledge focused HRD programs cast an impact on HR effectiveness?

The model utilizes the core essence of practice based learning and knowledge development that will eventually leads to HR effectiveness in terms of their capacity building. The practice based knowledge development has an overall significant positive impact on HRM effectiveness. Knowing (a refined synonym for knowledge), is classified as a practice that has its roots in a collective shared environment – space for mutual interaction and platform for simultaneous knowledge conversion between tacit and explicit knowledge (Nonaka, 1994). Training and development programs will be formulated keeping in view this dualistic essence of knowledge resulting in a broader acknowledgement of both explicit as well as tacit knowledge and a backbone philosophy of knowing through practice. The above discussion suggests the need for sub questions to evaluate the main question i.e.

RQ2a: Will practice based HR development programs leads to overall HR effectiveness?

5.3 Proposed Research Model 3 – Knowledge Based HRD Implementation

The third proposed model links knowledge based HRD implementation with HR effectiveness and therefore leads to another main question:

RQ3: How knowledge oriented HRD implementation results in improved HR effectiveness?

Practice oriented perspective directs attention to the working practices of communities and the ways in which these communities interact with other communities and networks outside and more specifically inside the organization. Applications of practice-based perspective in KM-HRD integration promotes that the organization could utilize communities of practice (Wenger, McDermott, & Snyder, 2002) working on multiple projects and constantly get involved in knowledge sharing programs (Boland Jr & Tenkasi, 1995) and, the design of mentoring and coaching systems (Swart & Kinnie, 2003). The idea is to facilitate social setup for practitioners who could share tacit knowledge with confidence and work in convenient surroundings (Heizmann, 2012). The above stated discussion helps us to formulate another sub question i.e.

RQ3a: How knowledge oriented communities of practice cast an impact on HRM effectiveness?

Once the focus is shifted to an embedded aspect of knowledge i.e. tacit knowledge; comprehensive literature with conceptual and empirical studies could be traced; indicating a careful yet different approach of handling tacit knowledge. The sharing mechanism between the individuals, teams and organizations would require different settings based on trust, openness and willingness to share. This requires the organizations to place greater onus on informal settings and ways to facilitate socialization among employees – a setting in distributed leadership and a simultaneous dynamic conversion of tacit and explicit knowledge would take place (Nonaka, 1994; Nonaka et al., 2014). It is recommend that the following research questions might find answers in this regard:

RQ3b: How tacit knowledge sharing based on socialization leads to overall improvement in HR competencies?

RQ3c: How organizations could yield improvements in different types of knowledge through HRD practices?

5.4 Proposed Research Model 4 – Knowledge Based HRD Evaluation

Since majority of the organizations have taken knowledge management initiative that have strong implications for HRD and HRM, the major question needs careful consideration that how to measure the outcome of these initiatives? When the outcome of these initiatives is mostly fluent and deeply subjective, the literature reflects lack of an appropriate performance measurement system for the purpose (Davenport & Prusak, 1998). Methods of measurement either reflects strategic goals and ignore operational dimensions and in other cases vice versa. For example there are case studies that include knowledge-oriented cultural analysis, or the intensification of training evaluations.

There are chances that the research attempt might end at bringing on surface more complex and difficult to use measurement models; whereas, managers need to develop simplified indicators that could be easily accepted by the employees as a source of judgment. The resulting questions relevant to the model will be:

RQ4: How Knowledge oriented HRD evaluation contributes to increased HR effectiveness?

And the corresponding sub question could be:

RQ4a: What will be the best measurement tools organization could adopt to measure HRD function in terms of knowledge management?

6. Discussion, Conclusion and Future Directions

The conceptual model generated presents important dimensions of an extended HRD process model where every step of the process is closely integrated with the corresponding knowledge management practices and concepts. Keeping in view the growing importance of knowledge economy and conversion of traditional business enterprises to knowledge creating firms; the model presents useful prepositions for the HRM function that holds a central position in the future of things. One of the important preposition associated with the model presents a novel area for future research as it suggests the need to manage different types of knowledge (tacit and explicit)

through variation in the HRD function and assess the resulting mechanisms for different contexts. This is quite consistent with some of the recent studies on KM and HRM linkage (Inkinen, Kianto, Vanhala, & Ritala, 2017; Kianto, Sáenz, & Aramburu, 2017).

This research attempt provides a rare view on the phases of HRD through improvisation with knowledge lens which adds to the literature of HRM as well as knowledge management. The development of the knowledge based HR model is an important contribution towards HRM literature as it elaborates the understanding of knowledge-based HRM practices. Avoiding the bundling approach towards HRM practices (Minbaeva, 2013); the paper uses the process approach that could help in understanding the impact of knowledge practices on the HRD sub processes and trigger in-depth and elaborative investigation within the sub phases.

The refined knowledge based HRD practices opens new research ventures on the active role of knowledge management as a contributory field in HR and Management fields. Models that integrate concepts from multiple fields have the tendency to provide more thorough understanding on complex phenomenon that relate in multiple ways; the model could examine trails from HRM, KM, Learning, Competencies and Organizational Performance. The prepositions and consequent questions derived in the paper could be used to evaluate the key role of knowledge-based HRM practices in the improvement of organizational performance.

A process approach on HRD reflects a logical progression of the human resource development function tightly linked with knowledge oriented activities. The literature review on both sides indicated common aspects which could enable organizations on establishing mutual objectives for HRD and KM resulting in early insertion of knowledge based goals in the HRD process. Since knowledge activities are embedded in practices, the model emphasizes the importance of practice based approach towards learning and development that could lead to HR effectiveness in terms of capacity building. The practice based knowledge management linkage

with HRD also presents a logical view as knowing is classified as a practice that has its roots in a collective shared environment.

The implication of practice based linkage also requires the organization to look at HRD providing better results when people get the required space for mutual interaction and platform for simultaneous knowledge conversion between tacit and explicit knowledge (Nonaka, 1994). Communities of practice are also pointed as a useful mechanism during training and development programs that could enable the constant conversion of two types of knowledge within wide verity of practices.

Looking at the major challenges that could emerge in the utilization of improvised knowledge-based HRD process; the major challenge remains in the implementation of the HRD programs that could foster knowledge sharing and improve transfer of learning at work. It will also be required from future HRD programs to help facilitate knowledge sharing and enhanced learning for the sake of individual and organizational effectiveness. The other major challenge and future research area is to see that how to measure the outcomes of the knowledge based HRD initiatives?

From this development of the framework few important research questions are generated that could further contribute not only theoretically, but if tested empirically could also provide useful managerial implications. The questions relate the extended (improvised) HRD process through knowledge management to performance variables (more specifically to HR effectiveness). The models propose exploratory researches that could also lead to important sub prepositions and questions that relate key elements like practice based learning and tacit knowledge sharing with HR effectiveness.

Important future research scope will be to test the model empirically in various contexts i.e. differences among service vs manufacturing concerns, differences between local and international firms, variation in perceptions among managers at different levels of the organizations and /or managers residing at head offices vs residing at regional or local offices. This may generate interesting contextual differences and implications for academics, researchers and managers.

6.1 Implications for HR Development Practitioners

As KM involves recognizing, documenting and distributing knowledge to improve organizational performance, it is of particular significance to HRD in formulating the training goals to develop knowledge management capacities. KM perspectives move HRD's goal away from developing individual capacity of creating, nurturing and renewing their own settings to a more holistic approach of managing organizational resources and interactions. Training courses should not only transfer established knowledge rather HRD practitioners should also shift focus to provide a platform for action based learning and the flow of tacit knowledge through interaction of key actors.

The ambitions to capitalize on knowledge management activities have to be factored in when training new employees, when analyzing training needs, formulating training and development programs, and evaluating development programs because the most significant variable for knowledge culture would be the development of knowledgeable employees (Davenport & Prusak, 1998).

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